



A.D. 1874, 24th APRIL. N° 1426.

S P E C I F I C A T I O N

OF

JOHN TOWLE.

COLLECTING, TREATING, AND
DISTRIBUTING SEWAGE.

L O N D O N :

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Collecting, Treating, and Distributing Sewage.

(This Invention received Provisional Protection only.)

PROVISIONAL SPECIFICATION left by John Towle at the Office of the Commissioners of Patents, with his Petition, on the 24th April 1874.

I, JOHN TOWLE, of the Town and County of Oxford, one of Her Majesty's Justices of the Peace for the City of Oxford, do hereby declare the nature of the said Invention for "IMPROVEMENTS IN THE MEANS EMPLOYED FOR COLLECTING, TREATING, AND DISTRIBUTING SEWAGE," to be as follows:—

(1). I propose to collect the town refuse, ashes, street and yard sweepings, and all the out-pourings of a town into two reservoirs, each one of sufficient capacity to receive the contents for twenty-four hours.

(2). I propose sinking the reservoirs sufficiently deep that when the refuse has been deposited the whole of the town liquid sewage for the following twenty-four hours may be poured over it, making the top of this bed the general outfall.

(3). I propose collecting the sewage by means of pipes or small drains spread over the town, having as few connections with each other as as

Towle's Improvements in Collecting, Treating, and Distributing Sewage.

possible, by multiplying the main pipes, which main pipes must be so laid as thoroughly to empty themselves on to the filter bed.

(4). I propose placing a perforated floor under the said reservoirs, thereby making them complete filter beds.

(5). Seeing there will be in all towns out-lying isolated cess-pools to be emptied on the old system I propose that all carts so employed shall empty into the reservoirs, and in case of over much slush so as to impede the filtration I use spent hops and straw cut into chaff, two most powerful deodorisers, and by making a thorough clearance every day there will be found in practice no nuisance as regards the air in any neighbourhood.

(6). I propose to sink under the filter beds a pumping well or lower chamber in connection with the upper reservoir.

(7). I propose pumping the filtered sewage from the pumping well into a tank raised sufficiently high to pass it through a permanent laid syphon pipe by its own gravitation to any and every part of the country it may be desirable to take it.

(8). Should there be hilly lands it may be desirable to benefit, this may be done by having a second tank raised for high service.

(9). I propose by hydrant and hose tapped into the syphon to douch the country with this liquid manure for the benefit of the town most where it is best paid for, and for the benefit of the country most where the land has hitherto been of little use, amounting to thousands of acres within pipe and hose distance of the towns.

(10). I propose from the syphon main pipe to add smaller syphons branching up hill and down dale, along green lanes, and beside of hedge rows, so as not to interfere with farming operations.

(11). Towns that have already laid down the main sewer system can avail themselves of my system, so far as adopting the filter beds, pumping well, and syphons, and getting rid of at the same time (not only getting rid of but turning to a very large profit) the town refuse and carted rubbish.

(12). I propose giving waterclosets to every house, in pent-up yards, and blocks of poor-houses by means of 18 inch pipes placed a little below the level of the ground, kept half full of water to be let out every

Towle's Improvements in Collecting, Treating, and Distributing Sewage.

twenty-four hours by drawing a small sluice, it being in conjunction with the street main. The letting out and letting in if needs be by pump will be but a small matter of labour, and a thorough riddance, no matter how few nor how many closets may be built over it, nor how
5 much slops emptied into it; and by this means is preserved pure and simple all the soap-suds, the most valuable of all liquid manures, doubly enriched by passing through the filter beds. Carbolic acid destroys the manure as well as all land on which it is applied.

Having now described and ascertained the nature of the said Inven-
10 tion, and the manner of carrying it into effect, I claim and desire to secure by Letters Patent, the improved means of collecting, treating, and distributing sewage, substantially as above described.

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